



"Using the X3D Web Standard to Simulate your Engineering Concepts

Addressing the challenge of institutional memory and its impact on design engineering, decision-making ability, and safety awareness in the critical next 20 years

March 2006

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The Need

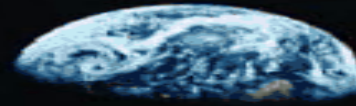
Project Execution with X3D

- NASA expects significant retirement attrition
- Replacements and new hires must be spun up
- Existing staff must have tools to collaborate
- Each Project Manager will need to find new tools to ensure institutional memory and “know how”
- Program Managers will need to support these efforts

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A Solution that Fits



Project Execution with X3D

- Goals
 - rapid knowledge transfer to ramp-up staff
 - real-time knowledge access to learn on-the-fly
- Methods
 - core set of knowledge from existing staff
 - add to knowledge as-you-go (organically)
 - use virtual reality on the browser (X3D)

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A Wide Net

Project Execution with X3D

- Ease of use
 - Web browser-based for everyone
 - Organically grown by project and code staff
 - Use low-cost industry standard tools like X3D
- Few if any other effective and affordable approaches

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Topics

Project Execution with X3D

This knowledge transfer must go well beyond "orientation." Probable themes:

- technical know-how
- project knowledge
- management training
- analytical systems engineering processes
- safety engineering at all levels
- “go-as-you-can-pay” concepts and implications
- collaboration skills
- executive/management and leadership skills

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X3D

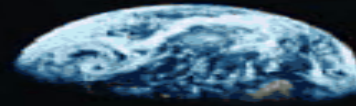
Project Execution with X3D

- X3D technology
 - formal industry standard
 - web 3D committee-supported, www.web3d.org
 - naval post-graduate school and NIST are leaders
 - browser-based with commercially available plug-in
 - everyone with a modern PC and an internet connection can participate!

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Key Web3D Members



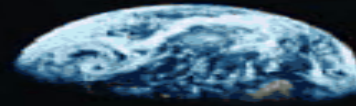
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- L-3 Communications
- Naval Postgraduate School
- NIST
- France Telecom R&D
- Old Dominion University/VMASC
- Feng Chia University GIS Lab
- Virginia Tech
- Institute of Production Engineering
- Communications Research Center of Canada
- Institutt for Energiteknikk

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Example-1



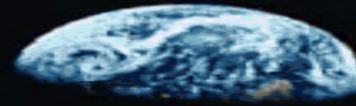
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X3D Demo #1

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Example-2



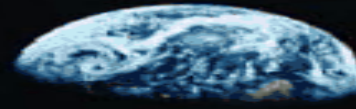
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X3D Demo #2

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Example-3



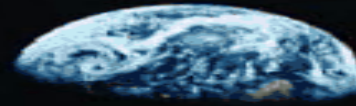
Project Execution with X3D

X3D Demo #3

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Example-4



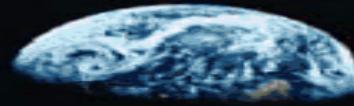
Project Execution with X3D

X3D Demo #4

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Example-5



Project Execution with X3D

X3D Demo #5

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Standard Delivery

Project Execution with X3D

Core and new learning modules are easily retrieved

The screenshot shows a web application titled "Flashpoint For HIPAA". The interface includes a navigation menu on the left with links like "Course Catalog", "Operating Mode", "My Profile", "Change Password", "My Flashpoint", and "Office Projector". The main content area displays a "Course Catalog" with a total of 25 courses available. It features search filters for "View" (All Courses, All courses for which I am approved) and "Course Type". A table lists several courses with columns for Title, Type, Description, Add to MyPlan, and My Status.

Title	Type	Description	Add to MyPlan	My Status
Time Management Study	Single user cd based	Time Management Techniques for busy professionals		APPROVED
Java Programming	Video-based	Intermediate Java Programming		APPROVED
HIPAA Awareness	Web-based interactive	This class provides you an introduction to the basic principles outlined in the HealthCare Information Portability and Accountability Act of 1998.		APPROVED (univ)
HIPAA Training for US Military	Web-based interactive	US Army HIPAA Training interactive web course		APPROVED (univ)
ISO 9001	Instructor-led	ISO 9001 standards for Product Certification		APPROVED

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Bottom Line

Project Execution with X3D

Simple, low-cost, organic!

- a living, growing system
- using X3D to communicate space agency knowledge for future generations of staff and contractors
- with a little help, you will succeed

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Benefits Summary

Project Execution with X3D

- Engineers in various disciplines and organizations can communicate better
- Troubleshooting casts a wider net in development, testing, or mission operations
- Safety can be greatly increased with more visual communications of issues and approaches

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Background

Project Execution with X3D

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- Where you can get X3D help
- A strong team
- Easy to procure
- NASA project experience
- Great solution for knowledge drain at NASA

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The End

Project Execution with X3D

Project Managers can get started today

Questions?

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